Title (en)

Coding for digital transmission.

Title (de)

Kodierung für digitale Übertragung.

Title (fr)

Codage pour transmission numérique.

Publication

EP 0485105 A2 19920513 (EN)

Application

EP 91310009 A 19911030

Priority

US 61122590 A 19901107

Abstract (en)

Digital signals, such as digitized television signals, are subjected to a source coding step followed by a channel mapping step. The source coding step causes the television signal to be represented by two or more data streams while, in the channel mapping step, the mapping is such that the data elements of the various data streams have differing probabilities of being erroneously detected at the receiver. In preferred embodiments, a first one of the aforementioned data streams carries components of the overall television signal which are regarded as the most important--for example the audio, the framing information, and the vital portions of the video information, such as motion compensation information--and that data stream is mapped such that its data elements have the lowest probability of error. A second one of the data streams carries components of the overall television signal which are regarded as less important than those of the first data stream and that data stream is mapped such that its data elements have a probability of error that is not as low as those of the first data stream. In general, it is possible to represent the overall television signal with any number of data streams, each carrying components of varying importance and each having a respective probability of error. This approach allows a graceful degradation in reception quality at, for example, the television set location because as the bit error rate at the receiver begins to increase with increasing distance from the broadcast transmitter, the bits that represent proportionately less of the video information will be the first to be affected. <IMAGE>

IPC 1-7

H04L 7/08; H04L 27/00; H04L 27/34; H04N 7/13

IPC 8 full level

H03M 13/00 (2006.01); **H04B 14/04** (2006.01); **H04L 27/34** (2006.01); **H04N 5/44** (2011.01); **H04N 7/08** (2006.01); **H04N 19/00** (2014.01); **H04N 19/30** (2014.01); **H04N 19/60** (2014.01); **H04N 19/65** (2014.01); **H04N 19/80** (2014.01); **H04N 19/85** (2014.01); **H04N 19/89** (2014.01)

CPC (source: EP KR US)

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Citation (applicant)

- EP 0282298 A2 19880914 - FORD AEROSPACE & COMMUNICATION [US]
- US 4015222 A 19770329 - WERNER JEAN-JACQUES
- US 4247940 A 19810127 - MUELLER KURT H, et al
- US 4457004 A 19840626 - GERSHO ALLEN [US], et al
- US 4489418 A 19841218 - MAZO JAMES E [US]
- US 4520490 A 19850528 - WEI LEE-FANG [US]
- US 4597090 A 19860624 - FORNEY JR GEORGE D [US]

Cited by

CN102131104A; US5802241A; EP0869674A1; USRE41003E; EP0616454A1; EP0589709A3; EP0540231A3; US5305352A; EP0540232A3; EP0562875A1; GB2378869A; GB2392069A; GB2378869B; EP0609017A3; EP0617531A1; CN100373829C; USRE38513E; USRE38483E; EP1387540A2; US6549716B1; EP1049334A1; EP0973335A1; EP0975171A1; EP0975168A1; EP0975169A1; EP0975170A1; EP0975172A1; EP0975173A1; EP0975174A1; EP0632661A1; FR2707130A1; US5892879A; US6049651A; EP0594505A1; EP0624033A3; US5289501A; EP0506400A3; US5555275A; EP0766478A3; EP1359761A3; EP1387540A3; USRE39928E; US6256357B1; US7352822B2; US7130358B2; US7340008B2; US6724976B2; USRE40242E; US6728467B2; USRE39111E

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